Scientific publication: quality assurance and research excellence

Safeguarding research and publication ethics

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Senior Executive Editor *The Lancet*

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“It is in all our interests to find a model for scientific publication that serves research excellence”

Janez Potocnik. European Science and Research Commissioner

(open access, funding models, pricing strategies, preserving the scientific record in the digital era)

Scientific journals: dual role of certification (or research assessment) and dissemination of knowledge.
Quality assurance and research excellence

Extended quality ranking of scientific journals beyond citation index:

- Quality of dissemination (allowing author self-archiving, publisher archiving, reference linking...etc)

But also unique opportunity to extend by:

- Adherence to good editorial/publication practice and thereby foster research integrity
Why does it matter?

Public trust in research – safeguards needed

Hendrik Schön, USA 2002

Hwang Woo-Suk, South Korea 2005

Jon Sudbø, Norway 2006

Eric T Poehlman, Canada 2005
Why does it matter?

Public trust in research – safeguards needed

129 retractions in PubMed in last 2 years alone
Journals’ reactions

?? move from a relationship of trust to one of vigilance

?? high-risk papers additional scrutiny
   (substantial public interest, unexpected results, high degree of commercial interest)

??further guarantees from co-authors

Journals need to work together
COPE
Committee on Publication Ethics

- started in 1997 as “self-help” group of editors
- 4 meetings a year
- anonymous discussion of suspected misconduct cases
- advice to editors as to how to proceed
- Guidelines on Good Publication Practice
- annual conferences and reports
Summary of COPE cases
1997-2006
<table>
<thead>
<tr>
<th>Year</th>
<th>No of cases</th>
<th>“Evidence of misconduct”</th>
<th>“Probably no misconduct”</th>
<th>Not applicable</th>
</tr>
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<tr>
<td>1997-2000</td>
<td>108</td>
<td>87</td>
<td>11</td>
<td>10</td>
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<td>2001</td>
<td>39</td>
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<td>2002</td>
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<td>2005</td>
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</tr>
<tr>
<td>2006</td>
<td>35</td>
<td>27</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>285</strong></td>
<td><strong>220</strong></td>
<td><strong>44</strong></td>
<td><strong>21</strong></td>
</tr>
</tbody>
</table>
Problems/dilemmas discussed (n=285)*

- Duplicate/redundant publication 77
- No ethics approval 34
- Authorship issues 31
- No or inadequate informed consent 30
- Falsification or fabrication 28
- Plagiarism 26
- Unethical research or clinical malpractice 19
- Undeclared conflict of interest 15
- Reviewer misconduct 8
- Editorial misconduct 6
- (miscellaneous 41)

*More than one possible
Of 285 cases, 172 pre-publication and 95 post-publication (18 not applicable)
Common difficulties for editors

- Time consuming!
- No reply from authors
- No reply from head of institutions
- Inadequate investigation by institution
- No institution
- Managing/analysing raw data
- What to do, if alleged misconduct is unproven?
COPE
Committee on Publication Ethics

- since 2001 elected Chair, Vice-Chair, Treasurer, and Council
- 2005, Code of Conduct for Editors
- 2006, COPE ombudsman
- 2006, COPE flowcharts as practical guides for Editors
- 2007, COPE will become a charity
Code of Conduct for Editors

Calls on Editors to take seriously their role as guardians of biomedical science

Sets out minimum standards of good editorial conduct (“gold standard” under discussion)

COPE members must abide by it
Unknown whether there is any link between research or publication misconduct and mode of publication

Different paper versions – may lead to selective/biased reporting

OA journals: financial pressure to publish regardless of quality??? (BUT: same goes for many other journals)
OA may make plagiarism easier???
OA might mean fraudulent research is detected faster??? (BUT recent cases in restricted journals detected quickly)

preprint publication lacks safeguard of peer review/editorial input (but peer review is not a guarantee to detect misconduct)
COPE Council

Harvey Markovitch (Chair), Syndication Editor, BMJ

Sabine Kleinert, (Vice-Chair), The Lancet

Jeremy Theobald (Treasurer), Forum for Global Health Protection

Tim Albert, Tim Albert Training

Jane O’Brien, Standards and Ethics, General Medical Council

Elizabeth Wager, Publication Consultant

Charlotte Haug, Journal of the Norwegian Medical Association

Pritpal Tamber, Medicine Report Ltd

Virgina Barbour, PLoS Medicine

Margaret Rees, Journal of the British Menopause Society

Steve Yentis, Anaesthesia
Editors/publishers of ALL journals and other forms of publications need to be vigilant and work with researchers, institutions, and funders to identify and ultimately prevent research and publication misconduct.

So, editors/publishers should abide by a common code of conduct as part of quality assurance.